



## UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20531  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/817,252	03/27/2001	Yoshihito Asao	Q63136	8284

7590 08/20/2002  
SUGHRUE, MION, ZINN, MACPEAK & SEAS, PLLC  
2100 PENNSYLVANIA AVENUE, N.W.  
WASHINGTON, DC 20037-3213

EXAMINER

TAMAI, KARL I

ART UNIT

PAPER NUMBER

2834

DATE MAILED: 08/20/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/817,252

Applicant(s)

ASAO ET AL.

Examiner

Tamal IE Karl

Art Unit

2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

## A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 24 June 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 7-10, 15 and 17-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 7-10, 15, and 17-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 28 November 2001 is: a) ☒ approved b) ☐ disapproved by the Examiner  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 09/065,571.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## DETAILED ACTION

### *Specification*

1. The amended title, "LUNDELL ROTOR WITH MAGNETIC PORTIONS BETWEEN THE CLAW POLES SECURED TO A BOBBIN", has been entered into the file wrapper. The requirement of a new title is withdrawn.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 7, 9, 10, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hotta et al. (JP 612-254,040) ('040) and Hotta (JP 3-265,450) ('450) and Burton (UK 2,074,795). '040 teaches a claw pole rotor with a resin bobbin and resin spacers, where the spacers abut the bobbin. The bobbin and spacers integrally formed of the same non-magnetic resin, with a fitting portion 30-c extending against the side and under the adjacent pole to prevent radial and axial movement of the spacer, where the fitting portion 30-c extends between both axial ends of the claw pole (including the tip). '040 does not teach magnetic material in the spacers. '450 teaches resin covers over discrete magnetic material to reduce flux leakage, but does not teach the material being resin with iron filings. It would have been obvious to a person of ordinary skill in the art at the time of the invention to construct the rotor of '040 with the magnetic

material in the spacers(covers), as in '450, to reduce flux leakage, and with magnetic portion being made from resin with iron filings because Burton teaches the resin is preferred because it can be molded into the shape.

4. The rejection of Claims 7 under 35 U.S.C. 103(a) over Tajima et al.(Tajima)(JP 54116610) and Saval et al.(Saval)(US 5325003) is withdrawn.

5. Claims 8 and 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hotta et al.(JP 612-254,040)('040) and Hotta(JP 3-265,450)('450). '040 teaches a claw pole rotor with a resin bobbin and resin spacers, where the spacers abut the bobbin. The bobbin and spacers integrally formed of the same non-magnetic resin, with a fitting portion 30-c extending against the side and under the adjacent pole to prevent radial and axial movement of the spacer, where the fitting portion 30-c extends between both axial ends of the claw pole(including the tip). '040 does not teach magnetic material in the spacers. '450 teaches resin covers over discrete magnetic material to reduce flux leakage. It would have been obvious to a person of ordinary skill in the art at the time of the invention to construct the rotor of '040 with the magnetic material in the spacers (covers), as in '450, to reduce flux leakage.

6. In regards to claims 15 and 19, the spacers for the magnetic portion and the bobbin are made as a unitary structure, but does not teach the process of injection molding. In order to advance prosecution on the merits, the examiner has considered

Art Unit: 2834

these claims as "product by process claims". As a product by a process claim "even though the product-by process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of the product does not depend on its method of production. If the product in the product by process claim is the same or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process". *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966(Fed. Cir. 1985). In the instant case the plastic bobbin and spacer can be molded plastic which is poured into the mold, rather than injected.

### ***Response to Arguments***

7. Applicant's arguments filed 5/23/02 have been fully considered but they are not persuasive. The Applicant's argument that Hotta and Hotta('040 and '450)(claims 7 and 8) do not teach discrete iron filings in resin is not persuasive because it is a known magnetic material which is easily molded(see Burton). The Applicant's argument that Hotta and Hotta do not teach the magnetic portions being the same resin is not persuasive because the spacers of '040 are integrally formed of the same resin as the bobbins and the spacers of '450 are the covers of the magnetic portions. The Applicant's argument that Burton cannot be combined with Hotta and Hotta because the magnetic core is a simple shape is not persuasive because the magnetic blocks of Hotta '450 are simple shapes, so it would be obvious to mold the magnetic blocks of Hotta from the iron filing/resin core of Burton because they are easy to mold and/or

Art Unit: 2834

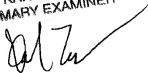
premod. The Applicant's argument that Burton is a core and not a permanent magnet is persuasive because Burton teaches the core is permanently magnetized(col. 2, lines 14-20). The examiner cites Okugawa for further support of the use of iron powder in a resin binder for use as a permanent magnet(bottom of col. 3 and top of col. 4). The rejections are proper and maintained.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karl I.E. Tamai whose telephone number is (703) 305-7066.

The examiner can be normally contacted on Monday through Friday from 8:00 am to 4:00 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Nestor Ramirez, can be reached at (703) 308-1371. The facsimile number for the Group is (703) 305-3432.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956.

KARL TAMAI  
PRIMARY EXAMINER



Karl I Tamai  
PRIMARY PATENT EXAMINER  
August 13, 2002